CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURE AT STATION **(10-12-01)**

Construct, maintain and afterwards remove a temporary structure in accordance with the applicable parts of the Standard Specifications and this Special Provision, (structure only; the approaches are not a part of this pay item). Provide a temporary structure with a minimum overall length of _____ feet (meters). Center the length of the structure about Station _____ Detour with the alignment, grade, and skew as indicated on the Roadway plans. If the skew is not 90°, lengthening the structure to accommodate a 90° skew is permitted. Provide a temporary structure with a minimum clear roadway width of _____ feet (meters) and an underclearance elevation no less than elevation _____.

Design the temporary structure for HS20 (MS18) live load in accordance with the current edition of the AASHTO Standard Specifications for Highway Bridges. The design of temporary structures need not satisfy the seismic design criteria of AASHTO Division I-A "Seismic Design", Section 3. Design and construct the bridge rails on the temporary structure in accordance with the current edition of the AASHTO Standard Specifications for Highway Bridges and such that guardrail can be bolted to the ends of the bridge rails.

Provide a timber floor of laminated construction on the temporary structure. Place a sufficiently thick bottom layer of lumber normal to the centerline of roadway and a top layer of 2" x 8" (50 mm x 200mm) lumber on a 45° skew with the centerline of roadway. Lumber wider than 8" (200mm) is permitted if approved. For the bottom layer, use lumber that is dressed on all four sides to ensure a uniform width and thickness. For the top layer, use lumber dressed only on one side to ensure a uniform thickness. Place the lumber so that the crown of the lumber is the rough side and is "facing up" in order to receive a tack coat. Apply sand seal to the timber floor after the top layer of lumber is completed. When preservative treatment is specified, follow AWPA Standards for the applicable use.

If the timbers in the bottom layer of lumber are at least 8 inches (200mm) thick, an asphalt wearing surface of at least 3 inches (75 mm) in thickness is permitted in lieu of the sand seal and top layer of lumber. Bolt the timbers together horizontally in minimum 4 foot (1.2m) mats. Prior to the assembly of the mats, have the Materials and Tests Unit, or their authorized representative, inspect the timber on all four sides. Place the face of timbers in contact with girder flanges so that they are even and positively bear on all girder flanges. If necessary, provide shimming to ensure positive bearing. Minor variations are permissible in the evenness of the top surface of timbers that is in contact with the asphalt. Secure the timber floor to the girder flanges at regular intervals.

Other floor systems are permitted if approved.

If timber piles are used, use piles that are new and conform to ASTM D25. Rough-peeled or clean-peeled untreated timber piles are permitted.

Submit design calculations to the Engineer that, as a minimum, include stress calculations for the following structural components: railings, rail post, rail post connections, timber floor, main girders or floor beam system, bent cap, pile bearing, pile as a structural member and longitudinal

and lateral stability of pile bents if necessary. For stream crossings, determine the pile stability assuming a scour depth equal to 250% of the pile diameter or width below the existing bed elevation. The Engineer may require a more detailed analysis of scour depth for pile bents containing more than a single row of piles.

Include material specifications for all new and used materials, including commercial grades and species of timber and lumber, in the detail drawings of the structure. In addition, show the location and a detailed sketch of the used materials indicating condition of the material, the location and geometry of existing but unused holes, attachments left over from previous use and any other irregularities in the material.

Indicate the condition of the used materials in the design calculations. Provide access to any used materials for inspection prior to assembly.

Used high strength bolts, nuts and washers are permitted only in already bolted-up connections of used diaphragm and girder systems that are proposed for reuse. The use of used bolts is limited to secondary member connections such as diaphragms and is subject to approval.

Have all timber and lumber inspected by the Materials and Tests Unit or their authorized representative before shipping it to the project. The use of ungraded timber and lumber is not permitted. Use material conforming to grading rules of SPIB, NELMA or other nationally recognized specification.

The lump sum price bid for "Construction, Maintenance and Removal of Temporary Structure at Station _____" will be full compensation for the above work including all materials, equipment, tools, labor and incidentals necessary to complete the work.